



Building Consistency Meeting Minutes – 4.5.17 RESIDENTIAL

Public Attendance (Contractors, Architects, Engineers): 18

MCCE Staff Attendance: 43

Overview of Today's Agenda

- Today's agenda items: 1 recap, 19 new.
- Today's training topic – CS3868: Residential Wall Bracing.

Welcome, Housekeeping, & Customer Service

- Mecklenburg County Code Enforcement is abbreviated as MCCE throughout the minutes.
- Consistency meetings in all trades have adopted a 4-hour format with 2-hours for consistency items and 2-hours allotted for ISO & CE. With regard to staff ISO hours, these meetings & trainings are able to be counted as Technical or Mentoring ISO time if one chooses, but any portion of time counted as one ISO category could not also be counted as any other category. Trade consistency meetings are scheduled monthly as follows:
 - Building Consistency (Comm) – 1st Tuesday of every month @ 8am.
 - Building Consistency (Res) – 1st Wednesday of every month @ 8am.
 - Electrical Consistency – 2nd Wednesday of every month @ 8am.
 - Mechanical Consistency – last Tuesday of every month @ 8am.
 - Plumbing Consistency – last Wednesday of every month @ 8am.
- Reminder of deadline established for topic/question submissions to building consistency team:
 - Third Wednesday of every month.
 - Deadline set to allow team time to research/explain code logic behind decisions.
 - Submit by email to Jeff Vernon, Bldg Code Administrator
jeff.vernon@mecklenburgcountync.gov
 - Submit online:
<http://charmeck.org/mecklenburg/county/LUESA/CodeEnforcement/Tools/Forms/Pages/ConsisTopicSubmit.aspx>
- Training topics for future building consistency meetings, Comm (C) & Res (R). Topics in **bold** are approved to count toward CE credit hours; all topics count toward ISO hours.
 - **May 2 - (C) – Accessibility Q & A (Laurel Wright, NCDOL)**
 - May 3 - (R) – TBD
 - June 6 - (C) – TBD
 - June 7 - (R) – TBD
- Building code qualification classes at CPCC
 - 2017 April 28-30; May 12-14 – Level I
 - 2017 July 21-23; Aug 5 & 6 – Level III
 - 2017 Sep 22-24; Oct 7 & 8 – Level II
 - 2017 Nov 17-19; Dec 1-3 – Level I

Residential Consistency (1 review items, 19 new items) – 2 hrs of Tech ISO

1. Open items or unresolved questions from last meeting:
 - a. Are wall sconces allowed in hallways?
 - Yes. The consensus from the Building Consistency Team is that sconces can be allowed if they do not protrude into the required 36" hallway width (R311.6) and they do not reduce the ceiling height to less than 6'6" every 4'. (R305.1, exception 3).



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2. When is a stair considered a winder?

A tread is considered a winder when the leading edge is non-parallel w/ the edges of the adjacent treads. However, the leading edge of the winder tread shall be uniform with itself and not curve or change directions except as allowed by a Bowed Tread Stair per R311.7.9.3.

3. What is required to be considered an “alley” for fire separation distance?

- a. In determining fire separation distance, one of the ways to measure per the definition is from the bldg face to the centerline of a street, an alley, or public way. By the context of the options and based on the requirement for access to the “public” way, the alley must be a public alley, not a private alley, and must be deeded/ recorded / dedicated as such.
- b. Patrick Bidy, Plans Examiner, also alerted Designers to be aware that any 2nd floor features like bay windows cannot encroach into the 3’ minimum fire separation distance.

4. How much gravel is required under a basement slab that is below grade?

- a. Basements require the full 4” depth of base course under the slab per R506.2.2 because of groundwater and capillary action. This must be carried out for the full length and width of the basement regardless of walkout condition.
- b. A Contractor asked what defines “gravel”. Jeff Griffin, Res Inspections Manager, said there is nothing in the code that specifies aggregate size. The Consistency Team will research this further and provide more info at next month’s meeting.
- c. Per R506.2.2 the use of clean graded sand is allowed as a base course option.
- d. Tony Kiser, Multi-trade Inspector, asked if Contractors would be allowed to use something other than gravel b/c of the note on their sealed plans that said “gravel base as req’d by local code or soil condition.” Jeff Griffin and Brandon Burgin, Inspection Supervisor, said this was typically a general note and that any mat’l that is code compliant would be acceptable.
 - Brandon Burgin also stated that if the Field Inspector requests the Contractor to provide an Engr’s letter to clarify the base course, the Inspector shall allow the Contractor to pour the slab at their own risk rather than hold up the pour.
- e. Omission of the req’d gravel base would require soil verification by a Soils Eng'r.

5. Where should the metal strap be installed when strapping modular panels together?

The strap is req’d to be installed across the top of the wall top plate to connect the modular panels together. To ensure the inspector can see it, the strap should slightly hang over the edge of the top plates on the interior side.

6. What is required for bearing of girder truss on top plate?

- a. Bearing for girder trusses is specified for floor & roof applications in R502.3 & R802.6 respectively.



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- b. Framing members shall have direct bearing with **no gaps** underneath. If hangers are used, the framing member must be **fully seated** in the hanger.



- c. Tony Kiser, Multi-trade Inspector, mentioned for Contractors to verify the clips used match the truss design. He regularly see that the clips differ for each design.

7. What is required for lot grading when the roof drains onto the lot?

- Jeff Griffin, Res Inspections Manager, said MCCE typically doesn't require gutters & downspouts. However, in a case where the 6" slope for a distance of 10' from the house is not maintained, MCCE does require gutters, downspouts, or some other drainage option like a French drain.
- An Inspector asked would MCCE require a gutter be installed on the entire house if a new addition on that house creates a situation where the 6" slope for 10' cannot be met. Jeff Griffin said those situations would be looked at on a case-by-case basis.
- Tony Kiser, Multi-trade Inspector, asked what MCCE's involvement would be in the situation where a new house created a drainage problem for an existing adjacent house. Jeff Griffin said MCCE will require code compliant drainage on the new house for final approval. The Code regulates the slope within 10' of the house. If the slope is code compliant in that area & does not discharge incorrectly, then MCCE has no further involvement.

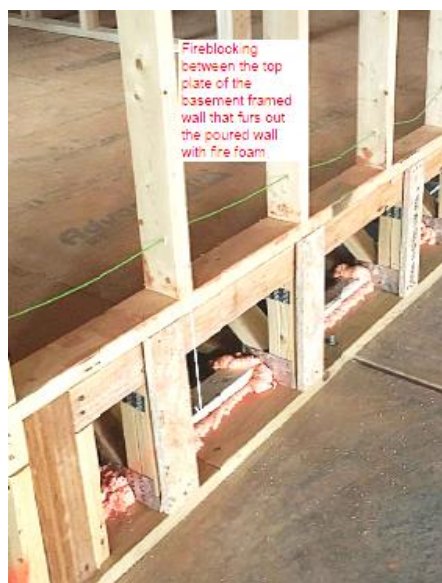
8. What are the requirements for fireblocking horizontally? (R302.11)

- When there is a gap between a furred stud wall & a masonry wall (in a finished basement for example), an add'l stud has to be added every 10' min to close off that gap.
 - Chris Kearns, Contractor, asked if the fire-block stud had to be treated if it touches the masonry wall. Jeff Griffin, Res Inspections Manager, said yes.
- Brian Goins, Multi-trade Inspector, said he is seeing the use of orange foam as fire block to seal large gaps. Jeff Griffin said the foam should only be used per Manufacturer's instructions, but should never be used on any gaps larger than 1".



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- c. Mario Gioe, Bldg Inspector, asked if any fireblocking was req'd every 10' at spots where studs were drilled to accommodate wiring running horizontally. Patrick Biddy, Plans Examiner, said if the wall was a rated assembly, then yes. Jeff Griffin said for walls that were not rated, MCCE nor any other jurisdiction is requiring fireblocking for drilled spots except for the stud, in a furred wall scenario, that is added to be fireblocking.
 - d. Jeff Griffin said that long horizontal chases that are open to the clg/floor cavity above, which run along the ceiling level & a wall, are considered part of the clg/floor above. The wall along which they run shall have either fireblocking panels between the chase & the wall cavities OR blocking in the stud cavities where the lower chase framing abuts the wall framing. No horizontal fireblocking is req'd inside the chase along its length.
9. Is draftstopping required in lower portion of a garage wall that is the floor band for the flr/clg assembly of a basement?
- a. See the following pics to better understand this scenario:





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- b. In an **unfinished** basement condition, the draftstopping for this floor band is achieved by the gyp bd. on the garage side of the wall.
 - Encapsulation on the backside of the wall insulation in that area is req'd b/c it is part of the garage wall; this encapsulation can be omitted if the thermal envelope is completed by insulating the floor above the basement.
- c. In a **finished** basement condition, the draftstopping for this floor band is achieved the same as an unfinished basement.
 - Encapsulation on the backside of the wall insulation in that area is **not** req'd.

10. When can inspections be stopped and marked as not ready?

- a. There are two different inspection codes that could come into play.
 - A4 – the code for when a project is not ready for the scheduled inspection.
 - IS – the code for when there are too many defect items to list individually.
- b. If an Inspector finds 10 or more different defect items soon after the start of the inspection, that inspection can be terminated without completion and listed as A4-Not Ready and possibly IS as well.
 - The 10 or more items should be different defects & not 10 instances of the same defect.
- c. Ron Tomlinson, Mech/Plumb Inspector, asked if all sub-trades need to be finalized before a Final bldg inspection can be performed. Jeff Griffin, Res Inspections Manager, said no. MCCE will inspect the final bldg items even if sub-trade permits are not finalized.
- d. A Contractor asked if all Eng'r letters needed to be uploaded prior to Final inspection. Jeff Griffin said yes, any req'd documentation should be uploaded prior to that inspection. However, if a Contractor has no access to electronically upload documents, Inspectors will still accept paper copies on site at the Final inspection **on a limited basis**.

11. What is the required width of a hallway?

- a. The req'd width of a hallway is 36" per R311.6.
- b. For a hallway adjacent to an open stair on one side, the measurement is made from the face of the newel post to the face of the drywall on the opposite side.

12. What are some field issues that aren't always obvious but need to be looked for?

The blocking over the header (pictured below) was used to conceal that the top plates were cut & TJI's were notched over the door. A taller door than specified on the plans was installed, which pushed the header up, leading to the non-compliant field modifications.





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13. Can walls sit on a 4" foundation wall at portal frames?

- No. The min allowed foundation wall width is 6". A 4" wide foundation wall would only be allowed in an engr'd design with specific details provided.
- If you need a 4" wide section of foundation wall at a garage door to accommodate the "goal post" framing, then header spans shall be lengthened so that jack/king studs can be placed further out on the 6" wide section of the foundation.

14. Can deck braces be notched?

There is nothing in the Code that would allow the notching of deck bracing; it could only be allowed as part of an engr'd design.

15. How should the ceiling membrane for a chase in a Duplex be configured at the separation wall?

The chase needs to be closed at the top with 5/8" Type X gyp, same as the ceiling of the unit, if the ceiling is providing the req'd separation per R302.3, exception 2.

16. Can T-ply be used as a guardrail in a walkout attic?

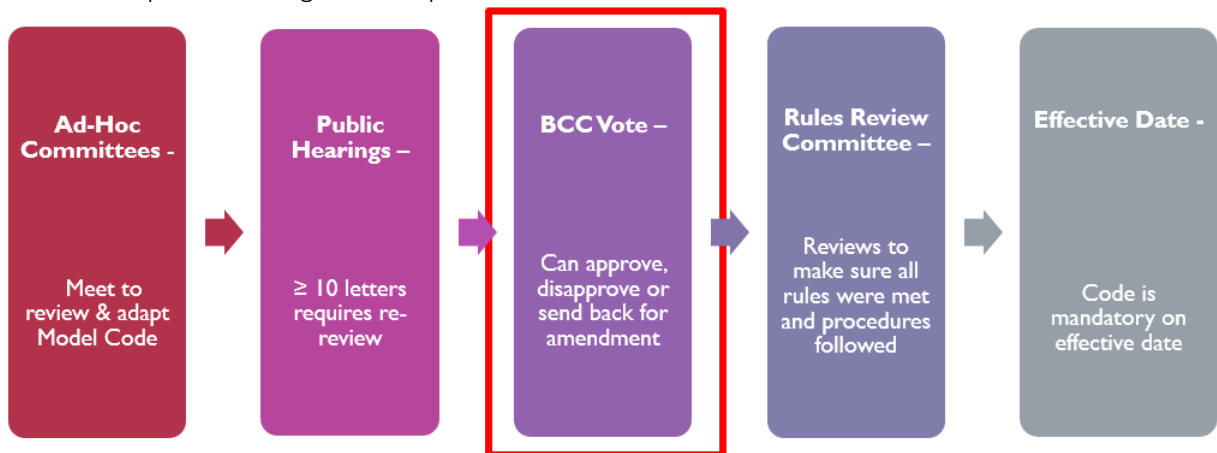
Not by itself. T-ply would have to be used in conjunction with a horizontal railing system and nailed properly. See attached Code Interpretation on attic guardrails.

17. What is the correct method for anchor strap & clip installation?

Anchor straps, clips, & similar hardware shall be installed in strict adherence to the Manufacturer's instructions and any engr'd design in which they are specified in on the plans. Installation using any other method shall be turned down on inspection.

18. Where are we in the Code change cycle?

- We are currently in the Bldg Code Council (BCC) voting stage; this vote will occur in June. All public hearing time has passed.



- The effective date of the new code will be January 1, 2019 as legislated in the law that created the 6-year code cycle.

- Dale Brigham, Plans Examiner, asked if Jan 1, 2019 would be the drop-dead mandatory date. Jeff Vernon, Bldg Code Administrator, said that will be the call of the Code Enforcement Director to decide how long of a grace period is offered to allow the use of the previous code after Jan 1, 2019.
- After** the new code passes the Rules & Review Committee of the BCC (see above) and **before** the effective date, specific sections of the 2018 NC Bldg Code can be used as an



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alternate method as long as its use is submitted to the Bldg Code Administrator through the established MCCE Alternate Methods & Materials procedure. This submittal would be on a per project basis.

- Please see attached Alternate Methods & Materials form for more info.
- d. Training on the new 2018 NC Bldg Code will be available after the new code is printed; more info will be provided after the printing date is known.

19. What are the latest updates to the 2017 Accumulative Code Supplements?

The latest updates, which went into effect January 1, 2017, deal with the following sections:

- 706 – Fire Walls
- 902 – Definition for Night Clubs
- 1007.7 – Exterior Area of Assisted Rescue
- 1018.1 – Construction of Corridors; 712.4 continuity
- 1109.2.1 – Family / Assisted-use Toilet & Bathing Rooms
- 1109.14 – Recreational & Sports Facilities

These updates, along with all the previous updates, can be found at the following link:

http://www.ncdoi.com/OSFM/Engineering_and_Codes/Documents/2012_NCBuildingCode_amendments/2012-2017ApprovedCumulativeTest1Format.pdf

20. Questions / clarifications / comments from the floor: None.

- a. What is the min distance allowed between foundation anchors; bolts or hold-down devices? This item will be researched further for the next meeting.
- b. An Inspector asked if Ledgerlok screws are acceptable as prescriptive fastening for deck bracing or railing. Jeff Griffin, Res Inspections Manager, said no. Those could be used in that application only through engr'd design.

Training Topic – Residential Deck Construction – 2hr of Tech ISO

- Presenter: Jeff Griffin, Code Enforcement Manager for MCCE
- Total in attendance:
 - 8 – MCCE staff
 - 18 – from outside MCCE

CODE



MECKLENBURG COUNTY

Building Code Enforcement

INTERPRETATION

CODE: 2012 NC RESIDENTIAL BUILDING CODE

SUBJECT: GUARDRAILS AT FLOORED ATTIC AREAS

REVIEWED: RESIDENTIAL CONSISTENCY TEAM

Question:

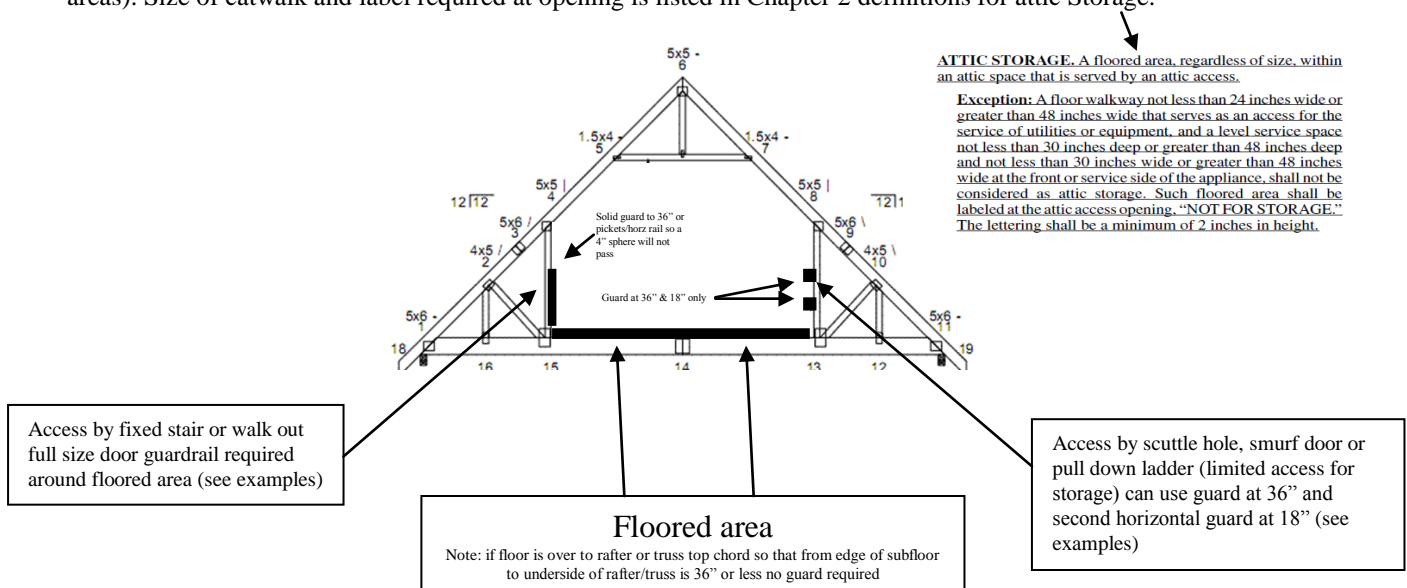
Is a guardrail required around floored attic areas used for homeowner storage or equipments accessed by catwalks

Code reference:

Chapter 2 definition for Attic storage, section R312 Guards, NCBC 1103.3 guard opening limitations.

Answer:

Yes, under certain situations a compliant guardrail system is required. 1) When the attic is accessible for a homeowner by means of a fixed stair or through a full size walk out door there needs to be a compliant guard installed per section R312 at 36" height and so that a 4" sphere will not pass through picket or horizontal railings. This is to protect the owner and children from falling off floored platform. If the flooring is pushed out to the rafter or truss top chord so that it is 36" or less in vertical height no guardrail is required. 2) If this same area is accessible by a scuttle hole, small smurf door or a pull down stairway homeowner access would be more limited and an alternate railing system similar to the NC Building Code section 1013.3 exception #4 for storage occupancies could be used which would require a guard at 36" and a midpoint guard at 18". Same issue if the platform/floor was installed over to the rafter or truss top chord so that there is 36" or less in vertical height from the edge of the platform then no guard would be required. 3) Third option is if the access is by scuttle hole, pull down stairs or smurf door to a catwalk for service of equipment in the attic this area would not be intended for homeowner access and no guard required (OSHA rules would govern contractor working in these areas). Size of catwalk and label required at opening is listed in Chapter 2 definitions for attic Storage.



Approved By Lon McSwain/Building Code Administrator Date 9/5/2012



MECKLENBURG COUNTY
Code Enforcement

REQUEST FOR ALTERNATE METHOD / MATERIAL

Project Information:

Residential Single Family Project: Y N	Commercial Project: Y N
Code Enforcement Project No:	Permit No:
Project Name:	Owner:
Project Address:	Suite No:
Date Requested:	

Person Requesting the Alternate Method / Material:

Name:		
Requestor's Association with the Project:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

Registered Design Professional in Responsible Charge (RDPIRC):

(Architects or Engineers must be licensed in the State of North Carolina)

Name:		
Firm Name:		
Phone Numbers:	Office:	Mobile:
Email Address:		
Mailing Address:		

CODE SECTION(S) FOR WHICH THE ALTERNATE IS BEING REQUESTED:

Trade(s)	Code Year	Section Number & Title
B E M P		
B E M P		

Reason for Alternate Request: _____

Explain how the proposed alternate continues to maintain the spirit and the intent of the Code (i.e. how it is equivalent to the level of protection prescribed by the Code: _____

Please identify any supporting documentation attached to this request. (e.g. test data, Materials Safety Data Sheets, etc.)

- 1.
- 2.
- 3.

Additional Comments: _____

Signatures:

Requestor

RDPIRC

Office use only

Results: Approved Denied Need More Information Cancelled

Reason: _____

Code Administrator

Director, Code Enforcement (optional)

Alternate Method / Material Process:

Per NC Administrative Codes and Policies, section 105, alternate materials, designs or methods of construction are allowed by the code provided the alternate has been approved by the Code Enforcement Official. In Mecklenburg County, these are reviewed by the Code Administrator for the respective trade(s) and/ or the Director of Code Enforcement using the following procedure.

- The Registered Design Professional in Responsible Charge (RDPIRC), the owner, a lessee or other duly authorized representative for the project must submit a letter of request on company letterhead that includes the following information along with supporting documentation.
 - Identify the project by address, project number and / or permit number as applicable.
 - Identify the code section(s) involved and state which material or method is to be substituted, omitted or excepted from the code requirement.
 - Identify the proposed alternate and explain how the alternate material or method will re-establish the project to the equivalent level as prescribed by code. Note: if the proposed alternate does not establish equivalency, it cannot be approved for use in the project.
- The applicant shall provide all supporting data, technical reports, product data sheets, drawings, sketches, computer models, calculations and / or other data that substantiates and justifies the request. The information supplied shall be specific to the products to be used on the project.
- Unless otherwise noted, the approval of an alternate material or method is specific to a particular project and shall not be applied to other projects. Each submittal shall be evaluated on the conditions and merits of the request for each individual project.

If you have questions or comments, please contact the appropriate Code Administrator for additional information on this process.

Code Administrators

 Building - Jeff Vernon, 980-314-3097
Jeff.Vernon@Mecklenburgcountync.gov

 Electrical - Gary Mullis, 980-314-3098
Gary.Mullis@Mecklenburgcountync.gov

 Mechanical and Plumbing – Tommy Rowland, 980-314-3099
Tommy.Rowland@Mecklenburgcountync.gov

PEOPLE • PRIDE • PROGRESS • PARTNERSHIPS
 2145 Suttle Avenue • Charlotte, North Carolina 28208 • 980-314-CODE

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